

This listing of claims will replace all prior versions, and listings, of claims in the application:

The Status of the Claims

1. (Currently Amended) An Internet Protocol (IP) phone with an assigned phone number capable of communicating over a packet-based communication protocol, ~~said the~~ IP phone located behind a firewall, ~~said the~~ IP phone comprising:

[[a:]] a Dynamic Host Configuration Protocol (DHCP) client software to, upon an initial power up of ~~said the~~ IP phone, ~~communicating~~ communicate with ~~said the~~ firewall to receive an IP address;

[[b:]] an IP agent software to, upon receiving ~~said the~~ IP address from ~~said the~~ firewall, ~~registering~~ register with a domain name system (DNS) switch based upon at least the following parameters: ~~said the~~ assigned phone number, ~~said the~~ received IP address, a public IP address associated with ~~said the~~ firewall, and a medium access control (MAC) address associated with ~~said the~~ IP phone; and

wherein, upon successful registration with ~~said the~~ DNS switch, ~~said the~~ IP agent ~~software receives~~ is to receive a port number and address over which future communications are to be performed, and the IP agent is to monitor for changes to the public IP address associated with the firewall after the IP phone is registered with the DNS switch and, upon detecting a change to the public IP address associated with the firewall, the IP agent is to identify a new public IP address associated with the firewall and reregister with the DNS switch without reinitializing the IP phone based upon at least the following parameters: the assigned phone number, the received IP address, the identified new public IP address associated with the firewall, and the MAC address associated with the IP phone.

2. (Currently Amended) An IP phone with an assigned phone number capable of communicating over a packet-based communication protocol, as per claim 1, wherein ~~said~~ the port number accepts communication requests via any of the following protocols: Session Initiation Protocol (SIP) or Media Gateway Control Protocol (MGCP).

3. (Currently Amended) An IP phone with an assigned phone number capable of communicating over a packet-based communication protocol, as per claim 1, wherein ~~said~~ the IP phone is additionally associated with a backup phone number, wherein ~~whereby~~ communications are forwarded to ~~said~~ the backup phone number upon any ~~disruptions~~ disruption in communication with ~~said~~ the IP phone.

4. (Currently Amended) An IP phone with an assigned phone number capable of communicating over a packet-based communication protocol, as per claim 1, wherein ~~said~~ the firewall runs ~~[[a]]~~ a Hypertext Transfer Protocol (HTTP) service and ~~said~~ the public IP address associated with ~~said~~ the firewall is obtained via ~~[[a]]~~ an HTTP GET query.

5. (Currently Amended) An IP phone with an assigned phone number capable of communicating over a packet-based communication protocol, as per claim 1, wherein ~~said~~ the communications between said IP agent and ~~said~~ the DNS switch is via the Transmission Control Protocol (TCP)/IP protocol.

6. (Cancelled)

7. (Currently Amended) An IP phone with an assigned phone number capable of communicating over a packet-based communication protocol, as per ~~claim 6~~ claim 1, wherein ~~said the IP agent monitors~~ is to monitor changes to ~~said the~~ public IP address associated with ~~said the~~ firewall at pre-set time intervals.

8. (Currently Amended) An IP phone with an assigned phone number capable of communicating over a packet-based communication protocol, as per claim 1, wherein ~~said the~~ DNS switch is behind an Internet Service Provider (ISP) gateway.

9. (Currently Amended) A method for facilitating a communication link between one or more Internet Protocol (IP) phones located behind a first firewall and one or more IP phones behind a second firewall via a domain name system (DNS) switch, ~~said the~~ method as implemented in ~~said the~~ DNS switch comprising ~~the steps of~~:

[[a:]] receiving a request for [[an]] a unique IP address from each of a first IP phone located behind ~~said the~~ first firewall and a second IP phone located behind ~~said the~~ second firewall;

[[b:]] transmitting a respective unique IP address [[for]] to ~~said each of the~~ first and second IP phones;

[[c:]] receiving a request for registration from ~~said each of the~~ first and second IP phones, each of ~~said the~~ requests based upon at least the following parameters: a unique assigned phone number, a unique IP address, a public IP address associated with a corresponding firewall, and a unique ~~MAC address, medium access control (MAC) address;~~

[[d:]] registering ~~said the~~ first and second IP phones based upon ~~said the~~ received parameters associated with each IP phone, and upon successful registration, transmitting a respective port number and respective address to ~~said the~~ first and second IP phones over which future communications are to be ~~performed, and performed; and~~

wherein [[a]] the communication link is facilitated at ~~said the~~ DNS switch between ~~said the~~ first IP phone and second IP phone via ~~said the~~ transmitted port ~~number and address numbers~~ and addresses, the first IP phone is to monitor for changes in a public IP address associated with the first firewall after the first IP phone is registered and, upon detecting a new public IP address associated with the first firewall, the first IP phone is to reregister without reinitializing the first IP phone based upon at least the following parameters: a first assigned phone number associated

with the first IP phone, a first received IP address associated with the first IP phone, the detected new public IP address associated with the first firewall, and a first MAC address associated with the first IP phone.

10. (Currently Amended) A method ~~for facilitating a communication link between one or more IP phones located behind a first firewall and one or more IP phones behind a second firewall via a DNS switch~~, as per claim 9, wherein ~~said port number~~ each of the numbers accepts communication requests via any of the following protocols: Session Initiation Protocol (SIP) or Media Gateway Control Protocol (MGCP).

11. (Currently Amended) A method ~~for facilitating a communication link between one or more IP phones located behind a first firewall and one or more IP phones behind a second firewall via a DNS switch~~, as per claim 9, wherein each of ~~said the~~ IP phones ~~[[are]]~~ is associated with a backup phone number and ~~said wherein the~~ method additionally comprises ~~the step of~~ identifying ~~disruptions~~ a disruption in communication with either of ~~said the~~ IP phones and forwarding communications addressed to a corresponding backup phone number.

12. (Currently Amended) A method ~~for facilitating a communication link between one or more IP phones located behind a first firewall and one or more IP phones behind a second firewall via a DNS switch~~, as per claim 9, wherein each of ~~said the~~ firewalls ~~run an~~ runs a Hypertext Transfer Protocol (HTTP) service and ~~said the~~ public IP address associated with each firewall is obtained via a HTTP GET query.

13. (Cancelled)

14. (Currently Amended) A method ~~for facilitating a communication link between one or more IP phones located behind a first firewall and one or more IP phones behind a second firewall via a DNS switch, as per claim 13~~ as per claim 9, wherein changes in ~~said the~~ public IP address associated with ~~firewalls~~ the first firewall are monitored at pre-set time intervals.

15. (Currently Amended) A method ~~for facilitating a communication link between one or more IP phones located behind a first firewall and one or more IP phones behind a second firewall via a DNS switch, as per claim 9~~, wherein ~~said the~~ DNS switch is behind an Internet Service Provider (ISP) gateway.

16. (Currently Amended) An article of manufacture comprising a computer-user tangible medium having computer readable code embodied therein which, when executed, facilitates communication between an Internet Protocol (IP) phone with an assigned phone number capable of communicating over a packet-based communication protocol and a domain name system (DNS) switch, said the IP phone located behind a firewall, said medium comprising wherein, when executed, the computer readable code causes a machine to:

~~a. computer readable program code communicating~~ communicate with said the firewall to receive an IP address,

~~b. computer readable program code, upon receiving said the IP address from said the~~ firewall, ~~registering~~ register with ~~[[a]]~~ the DNS switch based upon at least the following parameters: said the assigned phone number, said the received IP address, a public IP address associated with said the firewall, and a MAC address associated with said the IP phone, ~~[[and]]~~

~~e. computer readable program code, upon successful registration with said the DNS~~ switch, ~~receiving~~ receive a port number and address over which future communications are to be performed,

monitor for changes to the public IP address associated with the firewall after successful registration of the IP phone with the DNS switch, and

upon detecting a new public IP address of the firewall, reregister with the DNS switch without reinitializing the IP phone based upon at least the following parameters: the assigned phone number, the received IP address, the identified new public IP address associated with the firewall, and the MAC address associated with the IP phone.

17. (Currently Amended) An article of manufacture ~~comprising a computer-user medium having computer-readable code embodied therein which facilitates communication between an IP phone with an assigned phone number capable of communicating over a packet-based communication protocol and a DNS switch,~~ as per claim 16, wherein said medium further comprises the computer readable program code, when executed, further causes the machine to forward forwarding communications to a backup phone number upon identifying any ~~disruptions~~ disruption in communication with ~~said the~~ the IP phone.

18. (Currently Amended) An article of manufacture ~~comprising a computer-user medium having computer-readable code embodied therein which facilitates communication between an IP phone with an assigned phone number capable of communicating over a packet-based communication protocol and a DNS switch,~~ as per claim 16, wherein ~~said the~~ the firewall runs ~~[[an]]~~ a Hypertext Transfer Protocol (HTTP) service and ~~said the~~ the public IP address associated with ~~said the~~ the firewall is obtained via a computer readable ~~program~~ code generated HTTP GET query.

19. (Cancelled)

20. (Currently Amended) An article of manufacture ~~comprising a computer-user medium having computer-readable code embodied therein which facilitates communication between an IP phone with an assigned phone number capable of communicating over a packet-based communication protocol and a DNS switch, as per claim 19 as per claim 16~~, wherein said medium further comprises a timer for monitoring the computer readable code, when executed, further causes the machine to monitor for changes to said the public IP address associated with said the firewall at pre-set time intervals.